

AMENDMENTS TO THE DRAWINGS

Applicant submits herewith in an attachment four sheets of replacement drawings for Figures 1-4 of the present Application. No new matter has been added.

Attachment: Replacement Sheets for Figures 1-4

REMARKS

Claims 1-47, 49 and 53-61 are pending in the instant application. Claims 48 and 50-52 have been cancelled. Claims 62-69 have been withdrawn. Reconsideration of the instant Application and Claims is respectfully requested.

Drawings

In the outstanding Office Action, the Examiner required corrected drawings in compliance with 37 CFR 1.121(d). Corrected drawings are submitted herewith. Accordingly, Applicants respectfully request withdrawal of the aforementioned drawing requirements.

112 Rejections

Claims 38, 53 and 56 are rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Claims 38, 53 and 56 as amended herein overcome the aforementioned 35 U.S.C. § 112, first paragraph rejections. Accordingly, Applicants respectfully request the withdrawal of these rejections.

103 Rejections

Claims 1-19, 31-32, 38-44, 47, 53, 54, 55, 56 and 58-61 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Birrell et al. (U.S. Patent 6,332,175) in view of Jacobs et al.

(U.S. Patent 6,006,285). The Applicants have reviewed the cited references and respectfully submit that embodiments of the present invention as are set forth in Claims 1-19, 31-32, 38-44, 47, 53, 54, 55, 56 and 58-61 are neither anticipated nor rendered obvious by Birrell et al. in view of Jacobs et al.

The Examiner is respectfully directed to independent Claim 1 which is drawn to a computer system adapted to play audio files that comprises:

... a system CPU; memory; at least one drive comprising compressed audio data, said compressed audio data residing in one or more audio files; a play list software program for selecting and storing a play list comprising one or more of said audio files; a first operating system adapted to control at least said system CPU and said memory; and a second operating system, said second operating system being stored in BIOS and adapted to retrieve said play list and cause said drive to read at least one said audio file of said play list, to cause said system CPU to decompress the compressed audio data of said file and provide decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Independent Claims 2-19, 38, 53-56, 58 and 60 recite limitations similar to those recited in Claim 1. Claims 31-32 depend from independent Claim 20 and recite additional limitations of the claimed invention. Claims 39-44 and 47 depend from independent Claim 38 and recite additional limitations of

the claimed invention. Claim 61 depends from independent Claim 60 and recites additional limitations of the claimed invention.

Applicants respectfully submit that Birrell et al. in view of Jacobs et al. does not anticipate or render obvious the embodiments of the invention as set forth in the independent Claims rejected under this section. Birrell et al. in view of Jacobs et al. is deficient as Birrell et al. does not teach each of the limitations of these Claims and Jacobs et al. does not teach or suggest a modification of Birrell et al. that remedies the deficiencies of Birrell et al. In particular, Birrell et al. does not teach or suggest a computer system adapted to play audio files that includes a second operating system stored in BIOS that causes a system CPU to decompress compressed audio data, as set forth in independent Claims 1-19, 38, 53-56, 58 and 60 of the present invention.

Birrell et al. discloses a dissimilar (from Applicants' claimed invention) low power system and method for playing compressed audio data. Birrell et al. discloses that power can be saved by loading a portion of a measure of compressed data that is stored on an internal disc drive into RAM which it is contended requires less power and time to access. However, Birrell et al. does not disclose that a second operating system

that is stored in BIOS causes a system CPU to decompress compressed audio data.

It should be appreciated that the Examiner admits that the Birrell et al. reference "does not disclose a second operating system, said second operating system being stored in BIOS" (see outstanding Office Action page 12). Accordingly, Applicants respectfully submit that nowhere in the Birrell et al. reference is a computer system adapted to play audio files that includes a second operating system that is stored in BIOS and that causes a system CPU to decompress compressed audio data, taught or suggested as set forth in independent Claims 1-19, 38, 53-56, 58 and 60.

Other limitations recited in the aforementioned Claims that are not taught or suggested by Birrell et al. include a play list software program that selects and stores a play list, controls the CPU and memory, retrieves the play list, causes the drive to read a file and causes the CPU to decompress the audio data, as is recited in independent Claims 1-19, 38, 53-56, 58 and 60 of the present invention.

As it regards Jacobs et al., Applicants understand Jacobs et al. to disclose a computer system that is capable of playing

audio CD's in a CD-ROM drive independent of the computer system's operating system. Jacobs et al. discloses that an embedded application enables audio CD's to be played independently of the computer system's operating system. In the instant rejection, the Examiner equates the disclosed embedded application with the recited second operating system. Applicants respectfully disagree that the embedded application can be reasonably equated with the recited second operating system of independent Claims 1-19, 38, 53-56, 58 and 60.

Particularly, even assuming arguendo that the embedded application were indeed an operating system, Jacobs et al. does not disclose that the embedded application can be stored in the computer system BIOS. In contrast, Jacobs et al. discloses that the computer system's operating system (which is equated in the instant rejection to the recited first operating system) can be loaded through an activation of a non-volatile memory region that stores system BIOS code. However, this does not teach or suggest the claimed invention, since as discussed above, the playing of audio CD's in Jacobs et al. is performed independently of the computer systems operating system(see Jacobs et al. Col. 1, lines 64-67, and Col. 2, lines 1-5). Importantly, as stated above, Jacobs et al. clearly does not disclose a second operating system (equated in the instant rejection to the embedded application)

that is stored in BIOS as is required to meet the limitations of independent Claims 1-19, 38, 53-56, 58 and 60.

Additionally, other limitations of the rejected claims are not taught or suggested by Jacobs et al. Specifically, Jacobs et al. does not teach or suggest a second operating system that is adapted to cause the system CPU to decompress compressed audio data as is recited in independent Claim 1. It should be appreciated that in the audio CD mode disclosed by Jacobs et al. the audio file is played by an embedded CD-ROM drive application when the computer system is in the "off" state and thus the CPU is not available (since the computer system is off) to decompress compressed audio data. Accordingly, the aforementioned limitation of Claim 1 cannot reasonably be considered to be met by Jacobs et al.

Furthermore, Applicants respectfully disagree with the Examiner's contention that one of ordinary skill in the art would have been motivated to combine a portable audio device with a second operating system to avoid the lengthy duration of the booting process. In particular, Applicants do not believe that it would have been obvious to one of ordinary skill in the art to incorporate a second operating system into the disclosed portable audio device (which may be like an MP3 player) as there is no reasonable motivation for doing so.

Even assuming arguendo that the portable audio device may be considered in a broad sense a computer system, it doesn't mean that all of the functionality that is suitable for a fully functional computer is suitable for the portable audio device. Furthermore, no reasonable explanation as to why it would be suitable has been presented. Therefore, Applicants respectfully submit that there is no motivation or suggestion to modify the reference or to combine the reference teachings as set forth in the instant rejection. As such, the 103 rejections do not meet the basic criteria set forth in the MPEP, Section 2143, and should be withdrawn.

Because of the deficiencies of Birrell et al., and Jacobs et al. discussed above, Applicants respectfully submit that Birrell et al. in view of Jacobs et al. does not provide an adequate basis for rejection of Claims 1-19, 38, 53-56, 58 and 60 under 35 U.S.C. §103 and, as such, 1-19, 38, 53-56, 58 and 60 are allowable. Accordingly, the Applicants respectfully submit that Claims 31-32, 39-44 and 47 and 61 dependent on Claim 20 (not rejected under this section), 38 and 60 respectively are likewise allowable as being dependent on allowable base claims.

Claims 20-28, 34-37 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell (U.S. Patent 6,332,175).

The Applicants have reviewed the cited references and respectfully submit that embodiments of the present invention as are set forth in Claims 20-28, 34-37 and 57 are neither anticipated nor rendered obvious by Birrell et al.

The Examiner is respectfully directed to independent Claim 20 which is drawn to a computer system adapted to play audio files that comprises:

... a system CPU; memory; at least one drive comprising compressed audio data; and an audio controller coupled to said system CPU, memory and drive; said audio controller operating independently of said operating system, being adapted to cause said drive to read said compressed audio data, to cause said system CPU to decompress said compressed audio data, thereby providing decompressed audio data, and to cause said decompressed audio data to be stored in said memory.

Independent Claims 37 and 57 recite limitations similar to those recited in Claim 20. Claims 21-28 and 34-36 depend from independent Claim 20 and recite additional limitations of the claimed invention.

Applicants respectfully submit that Birrell et al. does not anticipate or render obvious the embodiments of the invention as set forth in independent Claims 20, 37 and 57 rejected under this section. Birrell et al. is deficient as Birrell et al. does

not teach each of the limitations of these Claims. In particular, Birrell et al. does not teach or suggest an audio controller that operates independently of an operating system that is adapted to cause a drive to read compressed audio data and a CPU to decompress the compressed audio data as recited in independent Claims 20, 37 and 57.

Birrell et al. discloses a dissimilar (from Applicants' claimed invention) low power system and method for playing compressed audio data. Birrell et al. discloses that power can be saved by loading a portion of a measure of compressed data that is stored on an internal disc drive into RAM, which is contended to require less power and time to access. However, Birrell et al. does not disclose a second operating system that operates independently of a first that causes a system CPU to decompress compressed audio data.

Applicants respectfully submit that nowhere in the Birrell et al. reference is an audio controller that is adapted to be operated independently of an operating system adapted to cause a drive to read compressed audio data and a CPU to decompress the compressed audio data taught or suggested as is required to meet the limitations of Claims 20, 37 and 57. Consequently, the embodiments of the Applicants' invention as are set forth in

Claims 20, 37 and 57 are neither anticipated nor rendered obvious by Birrell et al.

Applicants hereby traverse the holding of the Examiner as "official notice" that it would have been obvious to store the decompressed data prior to an A/D conversion. Applicants hereby respectfully request that the Examiner produce authority to support the "official notice" if this position is maintained.

Because of the deficiencies of Birrell et al. discussed above, Applicants respectfully submit that Birrell et al. does not provide an adequate basis for rejection of independent Claims 20, 37 and 57 under 35 U.S.C. §103 and, as such, independent Claims 20, 37 and 57 are allowable. Accordingly, Applicants respectfully submit that Claims 21-28 and 34-36 dependent on Claim 20 are likewise allowable as being dependent on an allowable base claim.

Claims 29, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell et al. in view of Alexander et al. (6,322,175). Applicants have reviewed the Birrell et al. and Alexander et al. references and respectfully submit that the embodiments of the present invention as are set forth in Claims 29, 30 and 33 are neither anticipated nor rendered obvious by Birrell et al. in view of Alexander et al.

Applicant respectfully submits that Alexander et al. does not teach or suggest a modification of Birrell et al. that would remedy the deficiencies of Birrell et al. discussed above. In particular, Alexander et al. does not teach or suggest an audio controller that operates independently of an operating system that is adapted to cause a drive to read compressed audio data and a CPU to decompress the compressed audio data as is recited in independent Claim 20 from which Claims 29, 30 and 33 depend.

Applicants understand Alexander et al. to disclose a method and apparatus for controlling a remote video camera in a video conferencing system. Moreover, Alexander et al. discloses that a control circuit controls a remote video camera of a conferencing apparatus in response to results provided by an analysis circuit. Importantly, Alexander et al. is concerned with video conferencing and not with the reading of compressed audio data from a drive. Based on a review of Alexander et al., Applicants respectfully submit that nowhere in the Alexander et al. reference is an audio controller that is adapted to be operated independently of an operating system and to cause a drive to read compressed audio data and a CPU to decompress the compressed audio data taught or suggested as is required to meet the limitations of Claim 20 (not rejected under this section) from which Claims 29, 30 and 33 depend. Consequently, Applicants

respectfully submit that the embodiments of the claimed invention that are set forth in Claims 29, 30 and 33 are neither anticipated nor rendered obvious by Birrell et al. in view of Alexander et al.

Claims 45, 46 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birrell et al. in view of Jacobs et al. in further view of Alexander et al. Applicants have reviewed the Birrell et al. and Alexander references and respectfully submit that the embodiments of the present invention as are set forth in Claims 45, 46 and 49 are neither anticipated nor rendered obvious by Birrell et al. in view of Jacobs et al. in further view of Alexander et al. Applicants respectfully submit that Alexander does not teach or suggest a modification of Birrell et al. that would remedy the deficiencies of Birrell et al. discussed above. In particular, Birrell et al. does not teach or suggest, in a method of playing audio files on a computer system, "storing said decompressed audio data in said memory for playback using a mini-operating system operating independently of a first operating system controlling said computer system, wherein said mini-operating system is operable only to play said compressed audio data" as is recited in Claim 38 (not rejected under this section) from which Claims 45, 46 and 49 depend.

Applicants understand Alexander et al. to disclose a method and apparatus for controlling a remote video camera in a video conferencing system. Moreover, Alexander et al. discloses that a control circuit controls a remote video camera of a conferencing apparatus in response to results provided by an analysis circuit. Importantly, Alexander et al. is concerned with video conferencing and not with the reading of compressed audio data from a drive. Based on a review of the Alexander et al. reference, Applicants respectfully submit that nowhere in the Alexander et al. reference is a method of playing audio files on a computer system that includes storing decompressed audio data in a memory for playback using a mini-operating system operating independently of a first operating system, wherein the mini-operating system is operable only to play the compressed audio data as is required to meet the limitations of Claim 38 from which Claims 45, 46 and 49 depend. Consequently, Applicants respectfully submit that the embodiments of the claimed invention that are set forth in Claims 45, 46 and 49 are neither anticipated nor rendered obvious by Birrell et al. in view Jacobs et al. in further view of Alexander et al.

Conclusion

In light of the above-listed remarks, the Applicants respectfully request allowance of the remaining Claims.

The Examiner is urged to contact the Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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